

**Testimony Prepared for the July 27, 2018, Field Briefing in Eddyville, Kentucky  
for the  
Subcommittee on the Interior, Energy, and Environment  
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Committee on Oversight and Government Reform  
by  
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Asian carps include four fish species (grass, bighead, silver, and black carp) which were brought into the United States in the 1970's at the request of Mississippi River delta fish farmers and for research with consent of the federal government. Bighead and silver carp were imported to help control algae and micro-invertebrates in extremely fertile aquaculture rearing ponds and for sewage treatment ponds. Along with controlling algae, they were reared for food products valued by ethnic populations located throughout the United States. Bighead and silver carp escaped from rearing ponds soon after being stocked, and by the year 2000, it was clear that they were very successfully recruiting throughout the Mississippi River basin. Their diets of zooplankton and algae include the same foods important to all fish or invertebrates during some period of their life cycles. Unfortunately, the carps reproductive and feeding characteristics allow the two invasive fish species to outcompete every fish species in our rivers and reservoirs for food. As if their forage habits were not a large enough threat, silver carp attain weights of over 70 pounds and are skittish fish, which when perturbed by noises and sudden movements, they leap high out of the water. They can land in boats and often hit boaters and skiers causing injuries and breaking fishing gear and equipment.

As they do in most of the Mississippi River and most of the rivers connected to it from Illinois to Louisiana, bighead and silver carp are beginning to dominate fish biomass in Kentucky and Barkley lakes. The fish enter into the reservoirs through the dams' navigation lock chambers; which are opened and closed over 6,000 time annually. The two fish species now threaten tourism economies in Kentucky and Tennessee valued over \$1.2 billion annually. Tourism is declining in the two reservoirs, recreational boaters are becoming hesitant to come to the reservoirs, small forage fish are declining in abundance and body conditions of key sportfish are worsening. Below both reservoirs, there are extremely popular tailwater fisheries being destroyed because Asian carp numbers are often so dense that anglers and fishing guides are no longer able to get their bait to the sportfish. Resort owners, fishing guides, local businesses, and thousands of Kentucky and Tennessee anglers are extremely frustrated about the fact that, despite our efforts to date, Kentucky and Tennessee are unable to do more to reduce Asian carp numbers. The anglers and boaters are forming coalitions and are compelling industries to join them to inform Congress that the southern states demand assistance with this issue. This is an economic and ecologic disaster for our two states, but there are 11 additional reservoirs in the Tennessee and Cumberland rivers which are being threatened by Asian carp. Those are extremely lucrative tourism economies situated along major cities, and they are very important sources of recreation and funding for Tennessee, Mississippi and Alabama. Kentucky and Tennessee are doing as much as we can to implement strategies to control and reduce Asian carp in Kentucky and Barkley lakes, but we need immediate federal assistance. If nothing more is done soon, based on the rate of Asian carp movement up the two rivers, the fate of the remaining 11 reservoirs will soon follow that of Kentucky and Barkley lakes.

In 2010, the Asian Carp Regional Coordination Committee (ACRCC) was created to form a partnership whose primary mission is to keep Asian carp from entering the Great Lakes; a mission of which we all wholeheartedly agree is important. The ACRCC is also tasked with conducting research on fish deterrents, and assess the efficacy of new, more efficient harvest methods and piscicides exclusively

targeting Asian carp. Since its initiation, Congress has authorized and appropriated over \$100 million to the ACRCC and the USACE for those mission objectives. None of those funds is available to states not part of the Great Lakes.

At about the same time as the ACRCC began receiving funding in 2010, the Kentucky Department of Fish and Wildlife Resources (KDFWR) unilaterally initiated efforts to procure federal funding to combat Asian carp. However, we quickly determined that Asian carp issues were shared across most of the Mississippi River basin. In order to gather more partners, late in 2010 we reached out to delegates of the Mississippi Interstate Cooperative Resource Association (MICRA); several federal agencies and 28 state fisheries agencies of the basin. In 2011, MICRA delegates began annual trips to D.C. to educate leadership of several federal agencies and Congressional members of the enormity of the Asian carp threats to our states' aquatic systems and tourism. We suggested that federal funding was needed to assist states' efforts at controlling the invasive fish number and preventing them from entering our own important reservoirs and rivers. We met with associations affiliated with multiple federal agencies such as the Aquatic Nuisance Species Task Force (ANSTF), and the Association of Fish and Wildlife Agencies, and our own state agencies and legislators. Additionally, KDFWR participated in four annual Congressional briefings funded by MICRA and hosted by the Northeast Midwest Institute, and testified as a witness on a Congressional panel hearing to testify about the funds authorized for the Ohio River mainstem Asian carp project.

Early in this outreach process, it was clear that, beyond the Great Lakes states, no federal funding or assistance was imminent to combat the spread and looming dominance of Asian carp throughout the Mississippi River basin. This was in spite of the ANSTF's 2007 recommendation for implementation of a national plan to combat Asian carp (*Management and Control Plan for Bighead, Black, Grass, and Silver Carps in the United States, Submitted to the Aquatic Nuisance Species Task Force, Prepared by the Asian Carp Working Group*). Our failure to obtain funding for the national plan compelled efforts to scale down funding requests to specific sub-basins in which several Congressional members were willing to submit bills to request Congress to amend the Water Resources Reform and Development Act (WRRDA). Amendments passed in 2014 resulted in \$2.3 million appropriated to the USFWS with direction for the Service to partner with states in an effort to reduce the likelihood of recruiting populations of Asian carp moving up the upper Mississippi and Ohio rivers. The USFWS works with the states and annually appropriates approximately \$500,000 to \$600,000 to each sub-basin and divided among each sub-basin state participating in the framework projects. The research frameworks, field efforts, and report writing is coordinated among state and federal agencies through the services of MICRA. However, as is the case for the ACRCC, funding for the two sub-basins can only be directed to those specific areas; with a single exception when some funding was allowed to be used in Kentucky lake (within the Ohio River basin) for telemetry and larval sampling in 2017. Even if it were possible to divert more research effort, there are insufficient funds for the states to divert more funds and still manage to attain the goals set for the Ohio River.

The USFWS, USACE, and USGS have been working together with state agencies and other entities to combat Asian carp in the two sub-basins and the Great Lakes at varying capacities throughout. Along with helping to organize the framework planning and field efforts, the USFWS and KDFWR staffs work together on several other projects. In Kentucky Lake, the USFWS are testing an electrified Paupier net in order to determine its efficacy to assess relative Asian carp abundance. We are also combining funding and staff to expand a telemetry project being implemented by KDFWR, TWRA, Tennessee Tech and Murray State universities. In 2018, the USFWS, USACE, and USGS committed funds and staff to work with the University of Minnesota, a United Kingdom company, KDFWR, and TWRA to test a privately owned acoustic fish deterrent system below Barkley Dam. The deterrent system project is a multi-year test that, if previous pond study results are indicative of the river tests, the deterrent would be a significant tool to prevent large-scale migration up river. These are just a few of the many ways Kentucky,

Tennessee, KDFWR and other entities partner on projects associated with Asian carp, and they are testaments of the strong partnerships among our federal and state agencies that expand beyond Asian carp issues.

Unfortunately, it takes funding for all entities to provide staff and equipment necessary to monitor, reduce and control Asian carp numbers and test or implement barriers protecting against invasive fish migration. Without adequate funding, the acoustic deterrent system will not be permanent at Barkley Dam. If only minimal funding is procured, the four-state fisheries agencies within the Tennessee and Cumberland rivers have agreed that a successful aquatic deterrent system should initially be placed to prevent establishment of Asian carp in Alabama's Guntersville Lake. If enough funding is realized (approximately \$1 million per unit), additional acoustic deterrent systems would then be installed below Barkley and Kentucky lakes to reduce future Asian carp immigration and help in our efforts to reduce densities in the reservoirs. In addition to the deterrent system, the USGS has offered to work with Kentucky to test their modified, unified fish harvest method in Lake Barkley. This method could be an important step towards increasing harvest efficiency in the two reservoirs; another tool added to the current commercial gill netting effort. In the event the method is successful, or any of the several methods Kentucky hopes to test in the coming year, it will be important to find funding assistance to purchase nets and gears necessary to use the systems commercially.

Today, commercial fishing is the only viable tool available to significantly reduce Asian carp numbers in Kentucky and Barkley lakes. The single argument against incentivizing an industry that targets Asian carp has been voiced by the USFWS and others, and it concerns potential for the industry to be more interested in perpetuating Asian carp instead of eradicating the fish. However, it is important to understand that there are no other economically feasible tools available that can remove enough Asian carp to significantly affect their populations without posing potentially disastrous, unintended mortality to our native fish and aquatic organisms. Without commercial effort, Asian carp will continue their dominance in our rivers and reservoirs of which they invade and they will continue to expand their ranges without any intentional assistance from man. Commercial effort in reservoirs and river pools can reduce Asian carp numbers to a point where they will not be detrimental to our recreational fishing and boating. When Asian carp numbers are harvested to the point where there are too few to support commercial harvest, the fishermen would simply target Asian carp in rivers and tributaries of which there are thousands of miles containing immeasurable amounts of Asian carp. The carp populations' current ranges and biomass should alleviate fears of an industry looking to intentionally expand ranges of Asian carp; there is simply no justification or need. Additionally, as commercial exploitation eventually reduces Asian carp numbers in reservoirs, agencies will use telemetry and refined harvest methods for more efficient removal of most of the remaining fish and prevent a resurgence of the populations in reservoirs and selected rivers systems; especially those with dams.

It will take many years and considerable industry expansion throughout the Mississippi River basin before Asian carp can be effectively reduced basin-wide. If commercial fishing remains the sole, significant tool to combat Asian carp, the benefits of the industry include the creation of many types of jobs directly and indirectly associated with the industry and from the many food-related fish products that will become available. Sources of fish are sorely needed throughout the world, and the highly nutritious Asian carp harvested from U.S. waters can help to alleviate a portion of that need domestically and abroad. This current invasive species tragedy was caused by bringing Asian carp to this country with concurrence of federal and certain state agencies in order to combat hyper-nutrication of rearing ponds and wastewater treatment ponds. This regrettable error cannot be undone, but it can become a positive situation if common sense prevails over idealistic and unrealistic expectations of Asian carp eradication; especially in the foreseeable future.

To underscore the importance of the commercial industry on controlling Asian carp, Illinois recently released results of a marketing research project which constructed the "Business Process Analysis and Action Plan". The Plan calls for \$32 million to be spent on industry infrastructure and marketing. Kentucky and Tennessee are also interested in facilitating existing processing businesses and the commercial industry. Since 2010, Kentucky agencies have been working hard to entice new fish processing businesses targeting Asian carp to locate in Western Kentucky. Today, three fish processing businesses have opened in Kentucky, and the fledgling industry and KDFWR are working together to help it through challenges of which all new industries are faced and to help the businesses expand. In fact, both states are creating partnerships with incentives to increase the number of fishermen dedicated to harvesting Asian carp year-around. The new partnership program is being structured to address problems that have prevented many commercial fishermen from fully engaging in the Asian carp industry: low prices per pound of whole fish, higher net prices, lack of ice availability, inconsistent demand by the processors, uncertainty of the solvency of checks used to pay for fish, and distance from the reservoirs to the processors and the associated costs of transporting fish. Given the many issues surrounding this young industry, it is no wonder that there are too few commercial fishermen harvesting Asian carp. But the new partnerships, of which contracts are currently being finalized, are designed to address all of those issues. KDFWR and TWRA will combine resources to provide oversight and assistance to ensure the Asian carp industry becomes economically relevant, and hopefully, self-sufficient. Regardless, the cost to subsidize or incentivize this industry will be insignificant compared to the benefits in terms of products, jobs, revenue created, and to the revenue saved by protecting fish communities and a multi-billion dollar tourism economies related to recreational boating and fishing.

On behalf of the people of Kentucky, Tennessee, Alabama and Mississippi, the War-On-Carp coalition and others have implored Congress to authorize \$5 million annually for 5 years to Kentucky to use for implementing another multi-agency, sub-basin framework and for helping our commercial industries succeed. The funding will be used to increase Asian carp commercial harvest initially in Kentucky and Barkley lakes and their tailwaters. Additionally, the multi-agency framework would be used to guide efforts to provide structured harvest and monitoring projects above the lakes, and that framework will also be used to provide reporting to Congress. Lastly, the funds will be used to help pay for important fish deterrent systems that would be strategically placed to protect reservoirs from mass invasion of Asian carp and to reduce migration of the invasive fish into those waters where there is commercial harvest effort employed to reduce numbers of the invasive fish. Funding for framework effort would also be provided to Tennessee, Mississippi, and Alabama. As always with interstate issues, the states will partner with several federal agencies on all aspects feasible to their respective missions. The citizens in Kentucky, Tennessee, Mississippi, and Alabama are reaching out to Congress to help fund our resource agencies by addressing Asian carp issues beyond the Great Lakes and two Mississippi River sub-basins.